DEPARTMENT OF COMMERCE
BUREAU OF STANDARDS
George K. Burgess, Director

CLINICAL THERMOMETERS

COMMERCIAL STANDARD CS1–28

ELIMINATION OF WASTE
Through
SIMPLIFIED COMMERCIAL PRACTICE

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON
1928

Below are described some of the series of publications of the Department of Commerce which deal with various phases of waste elimination.

Simplified Practice Recommendations.

These present in detail the development of programs to eliminate unnecessary variety in sizes, dimensions, styles, and types of over 75 commodities. They also contain lists of associations and individuals who have indicated their intention to adhere to the recommendations. These simplified schedules, as formulated and approved by the industries, are indorsed by the Department of Commerce.

Commercial Standards.

These are developed by various industries under a procedure similar to that of simplified practice recommendations. They are, however, primarily concerned with considerations of grade, quality, and such other characteristics as are outside the scope of dimensional simplification.

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Lists of the publications in each of the above series can be obtained on application to the Commercial Standards Group, Room 316, United States Department of Commerce, Washington, D. C.

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Effective Date, October 1, 1928

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CONTENTS

COMMERCIAL STANDARD CS1–28

ACCEPTED BY

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American Hospital Association.
American Medical Association.
American Pharmaceutical Association.
American Protestant Hospital Association.
Maine Purchasing Agents' Association.
Michigan Public Health Association.
Minnesota Hospital Association.
National Association of Retail Druggists.
National Wholesale Druggists Association.
Wisconsin Antituberculosis Association.

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Central State Hospital, Petersburg, Va.
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City Hospital, Cleveland, Ohio.
City of Chicago Municipal Tuberculosis Sanitarium, Chicago, Ill.
Clarinda State Hospital, Clarinda, Iowa.
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Columbus State Hospital, Columbus, Ohio.
Connecticut State Hospital, Middletown, Conn.
Cook County Hospital, Chicago, Ill.
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Crownsville State Hospital, Crownsville, Md.
Delaware State Hospital, Farnhurst, Del.
Denver General Hospital, Denver, Colo.

Department of Health, State of Connecticut, Hartford, Conn.
Department of Public Institutions, St. Paul, Minn.
Des Moines Drug Co., Des Moines, Iowa.
Division of Standards and Purchases, Albany, N. Y.
Druggists' Supply Corporation, New York, N. Y.
Duff Drug Co., Chattanooga, Tenn.
Durr Drug Co., Montgomery, Ala.
Duval County Hospital, Jacksonville, Fla.
East Louisiana State Hospital, Jackson, La.
East Mississippi Insane Hospital, Meridian, Miss.
Eastern Maine General Hospital, Bangor, Me.
Eastern Oklahoma Hospital, Vinita, Okla.
Eastern Oregon State Hospital, Pendleton, Oreg.
Eastern State Hospital, Williamsburg, Va.
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Fox-Vliet Drug Co., Wichita, Kans.
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Maris Co., John M., Philadelphia, Pa.
Maryland General Hospital, Baltimore, Md.
Maryland State Purchasing Bureau, Baltimore, Md.
Massachusetts Homeopathic Hospital, Boston, Mass.
Massillon State Hospital, Massillon, Ohio.
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Memphis General Hospital, Memphis, Tenn.
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Methodist Hospital, Indianapolis, Ind.
Metro Distributing Co. (Inc.), New York, N. Y.
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Miller Drug Sundry Co., Baltimore, Md.
Minneapolis Drug Co., Minneapolis, Minn.
Minneapolis General Hospital, Minneaplis, Minn.
Minnesota School for Feeble Minded, Faribault, Minn.
Moeller Co., A. E., Brooklyn, N. Y.
Montaperto Co., Charles, Brooklyn, N. Y.
Montefiore Hospital, New York, N. Y.
Morris & Dickson Co. (Ltd.), Shreveport, La.
Mount Sinai Hospital, New York, N. Y.
National Thermometer Co., New York, N. Y.
Nebraska Institution for Feeble Minded, Beatrice, Nebr.
Newark City Hospital, Newark, N. J.
Newberry State Hospital, Newberry, Mich.
New Hampshire State Hospital, Concord, N. H.
New Haven Hospital, New Haven, Conn.
New Jersey State Hospital, Greystone Park, N. J.
New York City Children's Hospital, New York, N. Y.
New York Polyclinic Medical School Hospital, New York, N. Y.
Norfolk State Hospital, Norfolk, Nebr.
Norristown State Hospital, Norristown, Pa.
North Dakota State Hospital, Jamestown, N. Dak.
Northern Wisconsin Colony and Training School, Chippewa Falls, Wis.
Nurnberg Thermometer Co. (Inc.), Brooklyn, N. Y.
Paterson General Hospital, Paterson, N. J.
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Pennsylvania Department of Health, Harrisburg, Pa.
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Public Welfare Commission (also Board of Wayne County Superintendents of the Poor), Detroit, Mich.
Randall, William A., New York, N. Y.
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St. John's Hospital, Fargo, N. Dak.
St. Joseph Sanitarium, Dubuque, Iowa.
St. Luke's Hospital, Chicago, Ill.
St. Luke's Hospital, Duluth, Minn.
St. Luke's Hospital, Jacksonville, Fla.
St. Luke's Hospital, New York, N. Y.
St. Vincent's Hospital, Norfolk, Va.
St. Vincent's Hospital, Portland, Oreg.
St. Vincent's Infirmary, Little Rock, Ark.
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San Diego County Hospital, San Diego, Calif.
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Scherrer, Albert, Brooklyn, N. Y.
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Schneider, R. F., Jersey City, N. J.
Schofield, F. E., Waterford, Conn.
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Spring Grove State Hospital, Catonsville, Md.
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Stanford University Hospitals, San Francisco, Calif.
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State Board of Charities and Corrections, Frankfort, Ky.
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State Hospital for Insane, Independence, Iowa.
State of Michigan, Lansing, Mich.
State of New Mexico, bureau of public health, Santa Fe, N. Mex.
State Public Welfare Commission, Howard, R. I.
State of Wisconsin General Hospital, Madison, Wis.

State Purchasing Department, Sacramento, Calif.
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Sterling Thermometer Co., Woodhaven, N. Y.
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Thomas D. Dee Memorial Hospital, Ogden, Utah.
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Tiemann & Co., George, New York, N. Y.
Touro Infirmary, New Orleans, La.
Towns & James, Brooklyn, N. Y.
Training School for Boys, Eldora, Iowa.
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Union Hospital, Terre Haute, Ind.
University Hospital, Ann Arbor, Mich.
University Hospital, Augusta, Ga.
University Hospital, Oklahoma City, Okla.
University Hospitals, Iowa City, Iowa.
University of California Hospital and Hahnemann Hospital, San Francisco, Calif.
Upjohn Co., Kalamazoo, Mich.
Utah State Hospital, Provo, Utah.
Utica State Hospital, Utica, N. Y.
Van de Mark, M. D., J. L., Rochester, N. Y.
Wacker, Conrad, Glendale, L. I.
Waco Drug Co., Waco, Tex.
Walding, Kinnan & Marvin Co., Toledo, Ohio.
Watts Hospital, Durham, N. C.
Weinhagen & Hespe, New York, N. Y.
Weixler Bros., Brooklyn, N. Y.
Wernersville State Hospital, Wernersville, Pa.
Wesley Hospital, Wichita, Kans.
Western Drug Co., Quanah, Tex.
Western Pennsylvania Hospital, Pittsburgh, Pa.
Western State Hospital, Fort Steilacoom, Wash.
Western Wholesale Drug Co., Los Angeles, Calif.
Wilkes-Barre General Hospital, Wilkes-Barre, Pa.
Williams & Co. (Inc.), H. W., Fort Worth, Tex.
Whittlesay Co., Charles W., New Haven, Conn.

GOVERNMENT

Department of the Interior, Washington, D. C.
Federal Specifications Board, Washington, D. C. (in principle).
Government of the District of Columbia, Washington, D. C.
Mountain Branch, National Home for Disabled Volunteer Soldiers, National Sanatorium, Tenn.
National Home for Disabled Volunteer Soldiers, Dayton, Ohio.
National Soldiers Home, National Soldiers Home, Va.
Northwestern Branch, National Home for Disabled Volunteer Soldiers, National Home, Wis.
Post Office Department, Washington, D. C.
United States Naval Hospital, Mare Island, Calif.
United States Public Health Service, Washington, D. C.
United States Shipping Board Merchant Fleet Corporation, Washington, D. C.
United States Treasury Department, Washington, D. C.
War Department, Washington, D. C.:
Fort Bliss, El Paso, Tex.
Letterman General Hospital, San Francisco, Calif.

CLINICAL THERMOMETERS

COMMERCIAL STANDARD CS1–28

In accordance with the unanimous action of a general conference of representative manufacturers, laboratories, distributors, and users of clinical thermometers, held on March 30, 1928, the industry has adopted, and approved for promulgation by the United States Department of Commerce, the following commercial standard for clinical thermometers:

1. General Requirements.

Every individual maximum self-registering thermometer sold, or offered for sale, to measure body temperatures shall have met all of the requirements specified herein, which may be outlined as follows:

(*a*) Construction.
(*b*) Character of pigment.
(*c*) Test for entrapped gas.
(*d*) Hard shaker test.
(*e*) Retreat test.
(*f*) Accuracy.
(*g*) Aging.
(*h*) Certificate.

2. Construction.

All thermometers shall meet the following requirements as to construction:

(*a*) Fahrenheit thermometers shall be graduated in 0.2° F., each degree mark and the mark at the normal point shall be longer than the intervening lines.

(*b*) Centigrade thermometers shall be graduated in 0.1° C., each degree and half degree mark shall be longer than the intervening lines.

(*c*) Numerals shall be etched on the scale at even numbered degree marks on Fahrenheit thermometers and at every degree mark except as hereinafter provided on centigrade thermometers.

(*d*) There shall be not more than 10.0° F. or 5.5° C. per inch of scale.

(*e*) All thermometers shall be free from any defects which impair the reliability or seriously mar the appearance.

(*f*) The range of scale shall be at least from 96.0° F. or 35.0° C., to 106.0° F., or 41.0° C. The 96.0° F. mark or the 35.5° C. mark shall be not less than ½ inch from the top of the contraction; that is, from the point at which the capillary resumes its normal shape above the contraction.

(*g*) Bulbs shall be made of Corning normal, or equally satisfactory thermometric glass. Colored bulbs shall not be used.

(*h*) Each thermometer shall bear in legibly engraved characters the name or trade-mark of the manufacturer and either a serial number, or a serial number and year, to provide complete identification.

(*i*) The normal point, except for veterinary use, shall be designated by an arrow or other suitable mark at 98.6° on Fahrenheit thermometers and in lieu of the numeral 37 on centigrade thermometers.

3. Character of Pigment.

Sample thermometers shall be immersed in a 5 per cent phenol in water solution for a period of one hour at a temperature above 70° F., without the indication of removal of the coloring matter or its appearance in the solution. All thermometers shall retain their pigment after the completion of all tests herein required.

4. Test for Entrapped Gas.

(*a*) In some cases gas is detected in the preliminary examination, but its presence is not always detected in thermometers which have gas pocketed in the bulb or constriction.

(*b*) All thermometers shall be heated to about 96° F. and the mercury above the constriction shaken off. The bulbs only are then cooled to 32° F. or below and may be manipulated by any method (except tapping or striking any part of the thermometers upon any surface whatsoever unless this is done as a part of the manufacturing process) to bring the gas to the top of the bulbs. When the bulbs are heated after this operation, the mercury from the bulbs shall reunite with that in the bores.

5. Hard Shaker Test.

All thermometers, after having been heated to 106° F. or 41° C., shall be mounted in a centrifuge with the ends of the bulbs 17 cm from the axis of rotation. When whirled at a speed of 580 r. p. m., the index shall fall below 96° F. or 35.5° C.

6. Retreat Test.

All thermometers shall be heated to the highest test point and allowed to remain in the bath which is cooled at a rate not exceeding 1.0° F. in three minutes. In this test a thermometer shall be classed as a retreater if it fails to hold its index within 0.3° F.

7. Accuracy.

(*a*) Except for such States as do not accept these specifications, thermometers shall be compared at 98, 102, and 106° F., or 37, 39, and 41° C. with certified clinical standards by heating in a well-stirred water bath, removing from bath, and reading. The temperature of the bath shall be rising at a rate of not more than $\frac{1}{10}$° F. per minute for the last minute before the thermometers are removed.

(*b*) Two independent comparisons shall be made at each test point. The mean of the readings at 98 and 102° F. (37 and 39° C.) shall not differ from the corrected indication of the standard by more than 0.2° F. (0.1° C.). The mean of the readings at 106° F. (41° C.) shall not differ from the corrected indication of the standard by more than 0.3° F. (0.15° C.).

(*c*) If the results of any two tests at the same point differ from each other more than 0.15° F. (0.08° C.) a thermometer shall not be rejected for this cause alone, but will be subjected to additional tests for repetition and/or retreat. If the maximum variation is more than 0.2° F. or 0.1° C., the thermometer shall be rejected for failure to repeat readings.

(*d*) Errors in the value of an interval between two adjacent test points shall not exceed 0.3° F. or 0.15° C.

(*e*) Rejection of thermometers for inaccuracy under paragraphs (*b*) and (*d*) above shall be made on the basis of the nearest 0.1° F. or 0.05° C.

8. Aging.

All thermometers shall be aged for a period of at least four months, aging to begin after completion of the constriction.

9. Certificate.

(*a*) Each thermometer shall be accompanied by a certificate which shall include the following statement:

---------- (Place) (Date)

We, the undersigned manufacturers, hereby certify that our registering clinical thermometer marked No. ——— will meet all of the requirements and tests as specified in the United States Department of Commerce Commercial Standard CS1–28 for Clinical Thermometers.

---------- (Company)

(*b*) It is recommended that the above certificate include the statement that it is supported by test records kept on file by the manufacturers for at least two years.

This recommendation is to become effective for new production October 1, 1928, and for final clearance of manufacturers' stocks March 30, 1929, subject to regular annual revision by the standing committee.

Promulgation recommended.

R. M. HUDSON,
Assistant Director, Commercial Standards.

Promulgated.

GEORGE K. BURGESS,
Director, Bureau of Standards.

APPROVED, June 12, 1928.

HERBERT HOOVER,
Secretary of Commerce.

HISTORY OF PROJECT

On November 18, 1927, a committee representing the Associated Thermometer Manufacturers, a group of manufacturers of clinical thermometers, called upon R. M. Hudson and requested the assistance of the Bureau of Standards in establishing a commercial standard for clinical thermometers as an effective basis for the inauguration of the certification plan to encourage the production and sale of reliable clinical thermometers.

Two well-attended preliminary conferences of producers and interested laboratory representatives were held on December 15, 1927, and February 24, 1928, to consider and formulate the details of the specification. The first of these conferences resulted in the formation of the Advisory Committee to the Bureau of Standards on Clinical Thermometers to facilitate the work, with W. Becton as chairman, W. A. Randall as vice chairman, and E. F. Mueller as secretary.

The tests proposed by the Bureau of Standards used as the original basis for discussion were modified and referred to a subcommittee headed by Dr. Bradford Noyes, jr., for further study and recommendation. The final specification represents close cooperation between the producers, the interested State laboratories, and the Bureau of Standards.

GENERAL CONFERENCE

(Held at the Department of Commerce, Washington, D. C., March 30, 1928)

Pursuant to a request of the Advisory Committee to the Bureau of Standards on Clinical Thermometers, a general conference of all representative interests was held on March 30, 1928, at the Department of Commerce, Washington, D. C. I. J. Fairchild, of the commercial standards unit, presided as chairman of the conference.

The proposed commercial standard, recommended by the advisory committee, was considered in detail by the conference, with the result that several changes were agreed upon, and the standard, as revised, was adopted.

It was voted to be the sentiment of the conference that the practice of reference to the time of registration (as ½ minute, 1 minute, and 2 minutes) as used on clinical thermometers, certificates, packages, or catalogues, be discouraged and eventually eliminated.

The conference requested that the commercial standard be translated into the Spanish and Portuguese languages, and that these translations be printed as official publications of the Department of Commerce.

STANDING COMMITTEE AND EFFECTIVE DATE

The recommendation is to become effective October 1, 1928, for new production, and March 30, 1929, for the final clearance of manufacturers' stocks.

The standing committee, which was appointed to represent the interests of various elements in the industry, will receive all comments and suggestions for the improvement of the recommendation and, at the expiration of one year from the effective date, will meet to consider what changes, if any, should be made. Any changes proposed by the standing committee will then be resubmitted to the industry for approval before final action is taken. The members of the committee are:

NOYES, Dr. BRADFORD, Taylor Instrument Cos., Rochester, N. Y. (chairman).
CROUNSE, W. L., National Wholesale Druggists' Association.
MICKLE, FRIEND LEE, State department of health, Hartford, Conn.
MORRILL, Dr. W. P., American Hospital Association.
MUELLER, E. F., Bureau of Standards, Department of Commerce, Washington, D. C.
PERCEFULL, Dr. A. C. L., United States Veterans' Bureau, Washington, D. C.
PHILLIPS, HERMAN, Phillips Thermometer Co.
SCHLEGELMILCH, OTTO, Schlegelmilch Bros.

Those who attended the general conference were:

BECTON, M. W., Becton, Dickinson & Co., Rutherford, N. J.
BRAND, PAUL, Paul Brand Co., Washington, D. C.
BROCKMEYER, E. C., National Association of Retail Druggists, Chicago, Ill.
COLBORN, JOHN A., General Supply Committee, Washington, D. C.
CONNOR, E. G., Maryland State Central Purchasing Bureau, Whitaker Building, Baltimore, Md.
CRAIN, KENNETH C., "Hospital Management," Chicago, Ill.
CROUNSE, WILLIAM L., National Wholesale Druggists' Association, Washington, D. C.
DAWSON, JAMES J., Commonwealth of Massachusetts, division of standards, Boston, Mass.
EISELE, LOGAN, Eisele & Co., Nashville, Tenn.
ELZ, JACK, American Flint Glass Workers, Bronx, N. Y.
FAICHNEY, GEORGE H., Faichney Instrument Corporation, Watertown, N. J.
FERNER, R. Y., The R. Y. Ferner Co., Washington, D. C.
GLICKSTON, S. W., Hudson Thermometer Co. (Inc.), Brooklyn, N. Y.
HEFLEBOWER, Maj. R. C., United States Army Medical Corps, War Department, Washington, D. C.
JONES, EDWARD, M. D., Freedmen's Hospital, Washington, D. C.
KESSLING, EDWARD J., E. Kessling Thermometer Co., Brooklyn, N. Y.
MENDES, ISAAC, Standard Instrument Co., Brooklyn, N. Y.
MICKLE, FRIEND LEE, State department of health, Hartford, Conn.
MORRILL, W. P., M. D., American Hospital Association, Standardization Committee, Washington, D. C.
NOYES, BRADFORD, JR., Taylor Instrument Cos., Rochester, N. Y.
PEARSON, PAUL, National Association of Retail Druggists, Washington, D. C.
PECORELLA, PETER J., Pecorella Manufacturing Co., Brooklyn, N. Y.

PERCEFULL, Dr. A. C. L., United States Veterans' Bureau, Washington, D. C.
PHILLIPS, HERMAN, Phillips Thermometer Co., New York, N. Y.
RALPH, H. D., Oil, Paint, and Drug Reporter, 12 Gold Street, New York, N. Y.
RANDALL, W. A., Associated Thermometer Manufacturers, New York, N. Y.
ROSE, MAURICE, Emrose Thermometer Co., New York, N. Y.
SCHAFFER, CHARLES, Navy Department, Bureau of Medicine and Surgery, Washington, D. C.
SCHERRER, Miss HELEN M., representing Albert Scherrer.
SCHLEGELMILCH, OTTO W., Schlegelmilch Bros., Long Island City, N. Y.
SCHLEGELMILCH, ERNEST, Schlegelmilch Bros., Long Island City, N. Y.
STONE, FRANK P., National Association of Retail Druggists, Washington, D. C.
VAN BRUNT, J. A., Karle Thermometer & Instrument Co., Passaic, N. J.
DEPARTMENT OF COMMERCE:

BLETZ, M. H., chief standards section, Bureau of Foreign and Domestic Commerce.

BRUCE, H. D.,
BUSSE, JOHANNA,
FAIRCHILD, I. J.,
HANNEN, PAUL T.,
HUDSON, R. M., assistant director,
McCORD, Miss ANITA A.,
MILLER, Mrs. MAY T.,
MUELLER, E. F.,
} Bureau of Standards.

COMMERCIAL STANDARDS PROCEDURE

Industry has long sensed the need for a wider application and use of specifications developed and approved by nationally recognized organizations. To assist these bodies and the producers and consumers in securing this result and as a natural outgrowth of the movement toward elimination of waste through simplified practice, the Bureau of Standards has set up a procedure under which specifications, properly indorsed, may be printed as official publications of the Department of Commerce and promulgated as "Commercial Standards." This service parallels that of simplified practice in many respects and is available only upon request.

Broadly speaking, the aim is to continue the same character of cooperative service in this field that is being rendered in simplification. The commercial standards unit is not designed to act as a standardizing body, nor will it engage in the preparation of specifications. Its service is mainly promotional in character, since its chief mission is to get behind a standard or a specification which any industry or its related groups may want to promulgate on a nationwide basis; to determine its eligibility for promulgation; to publish and broadcast it in the event the prerequisites of procedure have been met, including a satisfactory majority acceptance; to facilitate the application of the certification plan for the assurance and convenience of the small purchaser; to provide means for periodical audits of adherence; and to cooperate with the Bureau of Foreign

and Domestic Commerce in determining the desire of industry relative to translation and promulgation of such specifications as a basis for foreign commerce.

In general, it may be said that a simplification covers types, sizes, and varieties of a commodity which are retained by industry on the basis of demand, whereas a commercial standard establishes definite requirements as to grade, quality, or dimensional tolerances in addition to any simplification desired and accepted by the industry.

CERTIFICATION PLAN

In carrying out this plan there are compiled lists of manufacturers who have expressed their desire to supply material in accordance with selected commercial standards or other national specifications, and their willingness to certify to the purchaser, upon request, that the material thus supplied is guaranteed to comply with the requirements and tests of the specifications. Copies of any of these lists of manufacturers, to which additions are being made from time to time, can be obtained upon request from the National Bureau of Standards, Washington, D. C.

Manufacturers formally accepting the commercial standard for clinical thermometers have by so doing indicated not only their willingness but their intention of certifying compliance with the requirements of the standard by means of the statement as given on page 3, paragraph 9, "certificate."

ORGANIZATION AND DUTIES OF STANDING COMMITTEE

At the close of its session, each general conference appoints a permanent standing committee, composed of not more than three representatives from each phase of the industry; for example, producers, distributors, and consumers.

The proper functioning of the committee requires that its members be able to attend in person meetings held at some central place. They must also be prepared to devote the necessary time and to accept such assignments and responsibilities as may be found requisite to the success of the program.

Because the department in no case assumes the prerogative of taking final action in connection with a commercial standard, it is essential that there be some avenue through which the industry can be promptly consulted and can, in turn, make known its wishes. This function is best performed by a representative standing committee. For this reason the chairman, in accepting his appointment, places his services and those of his committee at the disposal of the Bureau of Standards for the prompt and careful consideration of all questions which may arise when the program is put into actual use.

A committee which quickly and accurately reflects the wishes of the majority of its industry and, through its chairman, promptly disposes of matters referred to it is a practical insurance against any serious difficulty in the adoption of a commercial standard.

The standing committee must recognize that the Department of Commerce has no "police powers" to compel the acceptors to adhere strictly to the letter of the recommendation. Unanimous adoption by the general conference indicates a recognition of the benefits inherent in standardization. If this fact is properly emphasized, the acceptors should be equally willing to follow the program in all cases where it is applicable.

While the recommendation is in effect, the standing committee is to receive all information showing departures, and to apply such corrective measures as appear to be in the best interest of all concerned.

YOUR COOPERATION

As a producer, distributor, or consumer of some of the commodities which have already been simplified, you are in a position to add impetus to this method of eliminating waste. The first step in that direction is to record your intention to adhere, as closely as circumstances will allow, to one or more of the existing recommendations.

You will, of course, want to examine the schedule before signing. The division of simplified practice will therefore furnish a copy of any recommendation which you wish to consider, with a view to its adoption. Publications no longer available through the division can be purchased, for a few cents each, from the Superintendent of Documents, Government Printing Office, Washington, D. C. (We will furnish detailed price list on request.)

When you have reached a decision, fill out the acceptance form on page 11, check the proper items on page 12, detach the sheet, and mail it to the division of simplified practice, Department of Commerce, Washington, D. C. In making your selection, remember that simplified practice applies, not only to the things you sell, but to the things you buy. On the support accorded by the consumer depends, in a large measure, the success of these waste-elimination programs.

The receipt of your signed acceptance will permit the listing of your organization in the new editions of the recommendations you have checked. Any proposed revisions will be submitted to you for approval prior to publication.

This support is entirely voluntary and applies to stock items. It is not meant to interfere with the purchase or sale of such special sizes and types as are sometimes required to meet unusual conditions.

Trade associations and individual companies often distribute large numbers of the printed booklets for the information and guidance

of their business contacts. In such cases it is possible to extend the scope and degree of adherence by urging each recipient to send in an acceptance. Bear in mind that the practical value of any simplification or standardization is measured by the observance it receives. A number of the simplified practice recommendations have already secured an adherence of more than 90 per cent, by volume, of annual output. If each producer, distributor, and consumer will do his part toward discarding nonessentials, and specify simplified lines when buying, adherence will approach 100 per cent. Obviously, the higher the adherence to each specific simplification the greater will be the benefits therefrom to all concerned.

NOTE.—The information requested in footnotes 1 and 2 is essential to the proper listing of your organization in future editions of the printed bulletins.

ACCEPTANCE OF SIMPLIFIED PRACTICE RECOMMENDATION

Date_____

The SECRETARY OF COMMERCE,

Washington, D. C.

SIR: We, the undersigned, hereby accept the simplified practice recommendations or commercial standard checked on the reverse side hereof [1] as our standards of practice beginning _____ (Date) in the production,[2] distribution,[2] and consumption,[2] of the simplified or standardized lines.

(Cut on this line)

We will use our best effort to secure the general adoption of the simplified or standardized types, sizes, and styles.

Signed_____

Title_____

Company [3]_____

Street address [3]_____

City and State [3]_____

[1] Be particular to indicate which simplified practice recommendations or commercial standard you are accepting by checking the list on the reverse side of this form.

[2] Please designate by drawing lines through those which do not apply.

[3] Kindly typewrite or print.

SIMPLIFIED PRACTICE RECOMMENDATIONS

No. Item

1. Vitrified paving bricks (sixth revision).
2. Beds, springs, and mattresses.
3. Metal lath (first revision).
4. Asphalt (first revision).
5. Hotel chinaware.
6. Files and rasps.
7. Rough and smooth face brick; common brick.
8. Range boilers.
9. Woven-wire fencing; woven-wire-fence packages.
10. Milk bottles and caps (first revision).
11. Bed blankets.
12. Hollow building tile (first revision).
13. Structural slate (first revision).
14. Roofing slate (first revision).
15. Blackboard slate.
16. Lumber (second revision).
17. Forged tools (first revision).
18. Builders' hardware (first revision).
19. Asbestos paper and asbestos millboard (first revision).
20. Steel barrels and drums (first revision).
21. Brass lavatory and sink traps.
22. Paper.
23. Plow bolts.
24. Hospital beds.
25. Hot-water storage tanks.
26. Steel reinforcing bars.
27. Cotton duck (first revision).
28. Sheet steel (first revision).
29. Eaves trough and conductor pipe.
30. Roofing ternes (first revision).
31. Loaded paper shot shells (second revision).
32. Concrete building units.
33. Cafeteria and restuarant chinaware.
34. Warehouse forms.
35. Steel lockers (first revision).
36. Milling cutters.
37. Invoice, purchase order, and inquiry forms (first revision).
38. Sand-lime brick.
39. Dining-car chinaware.
40. Hospital chinaware.
41. Insecticides and fungicides (package sizes).
42. Paper grocers' bags.
43. Paint and varnish brushes (first revision).
44. Box board thicknesses.
45. Grinding wheels (first revision).
46. Tissue paper.
47. Cut tacks and small cut nails.
48. Shovels, spades, and scoops (first revision).

No. Item

49. Sidewalk, floor, and roof lights.
50. Bank checks, notes, drafts, and similar instruments.
51. Chasers for self-opening and adjustable die heads (first revision).
52. Staple vitreous china plumbing fixtures.
53. Steel reinforcing spirals.
54. Sterling silver flatware.
55. Tinware, galvanized and japanned ware.
56. Carbon brushes and brush shunts (first revision).
57. Wrought-iron and wrought-steel pipe, valves, and fittings.
58. Classification of iron and steel scarp (first revision).
59. Rotary-cut lumber stock for wire-bound boxes.
60. Packing of carriage, machine, and lag bolts.
61. White glazed tile and unglazed ceramic mosaic.
62. Metallic cartridges.
63. Metal spools (for annealing, handling, and shipping wire).
64. Containers for vegetable shortening.
65. Lead pencils.
66. Automobile brake linings.
67. Roller bearings.
68. Metal and fiber flash-light cases.
69. Packaging of razor blades.
70. Salt packages.
71. Turnbuckles.
72. Solid section steel windows.
73. One-piece porcelain insulators.
74. Hospital and institutional cotton textiles.
75. Composition blackboard.
76. Ash handles.
77. Hickory handles.
78. Iron and steel roofing.
79. Malleable foundry refractories.
80. Folding and portable wooden chairs.
81. Binders board.
82. Hollow metal doors.
83. Kalamein doors.
84. Composition books.
85. Adhesive plaster.
86. Surgical gauze.
87. Form dimensions for concrete ribbed floor construction.
88. Floor sweeps.
89. Coated abrasive products.
90. Hack-saw blades.

COMMERCIAL STANDARDS

1. Clinical thermometers.